Southern California Edison

DRAFT

Implementation Plan

Program Name

First Filing Date: mm/dd/yyyy

Revision Filing Date: mm/dd/yyyy

Table of Contents

1. Program Overview

Provide a brief description of the program (3-5 sentences).

The Commercial Energy Reduction Initiative (CERI) is a resource acquisition program seeking to deliver impactful, scalable, and meaningful energy savings to SCE's commercial customers across the healthcare, high-tech, biotech, private school, and college subsectors as well as all commercial subsectors under 200 kW that are not served by SCE's Simplified Savings or other commercial or equity programs.

2. Program Attributes

Budget and Savings		Information
1	Program Name	Commercial Energy Reduction Initiative
2	Program ID number	TBD
3	Program Implementer	Resource Innovations
4	Portfolio Administrator	Southern California Edison
5	Program Implementer Type (IOU Core, Third-Party Solicited, REN/CCA)	Third-Party Solicited
6	Portfolio Segment (Resource Acquisition, Equity, Market Support, or Codes and Standards)[1]	Resource Acquisition
7	Total Program Budget	$19,991,497
8	Program Budget by Year	PY 2025 - $1,179,122 PY 2026 - $2,410,729 PY 2027 - $7,945,557 PY 2028 - $6,806,203 PY 2029 - $1,649,886
9	Program Duration (Start Date - End Date)	(Est.) 07/15/2025 – 12/31/2029
10	Total System Benefit (TSB) (Total Program TSB and TSB by Program Year)	PY 2025 - $355,786 PY 2026 - $4,391,115 PY 2027 - $15,186,174 PY 2028 - $13,518,987 PY 2029 - $3,277,127
11	CO_2 (Lifecycle, First Year, Net, Gross)	PY 2025 Lifecycle Gross CO_2 601.5 Lifecycle Net CO_2 -87.5 First Year Gross CO_2 346.43 First Year Net CO_2 115.32

[1] D.21-05-031 Ordering Paragraph 2.

Budget and Savings		Information
12	KW (First Year, Net, Gross)	PY 2025 First Year Gross KW 37.84 First Year Net KW 17.03
12	KWh (Lifecycle, First Year, Net, Gross)	PY 2025 PY 2026 PY 2027 PY 2028 PY 2029 *Table 2.1 below
13	Therms (Lifecycle, First Year, Net, Gross)	PY 2025 PY 2026 PY 2027 PY 2028 PY 2029 *Table 2.1 below
14	Program Cost Effectiveness: Total Resource Cost (TRC): (Total TRC and TRC by Year)	PY 2025 -- 0.33 PY 2026 – 1.17 PY 2027 – 1.06 PY 2028 – 0.97 PY 2029 – 1.04 Total TRC – 1.01
15	Program Cost Effectiveness: Program Administrator Cost (PAC): (Total PAC and PAC by Year)	PY 2025 – 0.39 PY 2026 – 2.0 PY 2027 – 2.21 PY 2028 – 1.85 PY 2029 – 1.28
16	Market Sector(s) (i.e., residential, commercial, industrial, agricultural, public or cross-cutting) If multi-sector, provide estimated % of the total budget for each sector)	Commercial
17	Program Type (i.e., Non-resource, Resource)	Resource
18	Delivery Type(s) (i.e., Upstream-Manufactured, Midstream-Distributor, Midstream-Retail, Downstream, Downstream - Direct Install,[2] Codes & Standards)[3]	Downstream, Downstream – Direct Install

[2] https://cedars.sound-data.com/deer-resources/deemed-measure-packages/guidance/
[3] Database for Energy Efficiency Resources (DEER) 2026 Delivery Types.

Budget and Savings		Information
19	Intervention Strategies (e.g., Strategic Energy Management (SEM), Market Access Program (MAP), Direct Install, Incentive, Finance, Audit, Technical Assistance, Advocacy, Training, Marketing and Outreach, etc.)	Direct Install, Incentive, Finance, Audit, Technical Assistance, Advocacy, Marketing and Outreach
20	M&V Methods (e.g., Deemed, Custom, NMEC – Population, NMEC – Site, SEM M&V, Randomized Controlled Trial (RCT), Other (if applicable, describe Other M&V method))	Deemed, Custom, NMEC - Site

2.1 kWh and Therm Savings Goal Reference

	kWh				Therm			
	Lifecycle		First Year		Lifecycle		First Year	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
PY 2025	1,639,828	(479,777)	1,063,209	356,674	246,224	243,681	25,701	24,854
PY 2026	54,319,267	38,980,292	12,226,915	8,720,240	332,320	308,262	31,469	29,738
PY 2027	210,825,025	137,485,798	43,345,345	28,013,897	826,204	712,855	74,788	66,384
PY 2028	183,860,923	122,296,388	36,423,600	24,039,620	631,459	530,705	56,184	48,713
PY 2029	32,562,895	30,934,750	7,945,000	7,547,750	-	-	-	-

3. Implementation Plan Narrative

1. Program Description

CERI is a resource acquisition program serving Southern California Edison's (SCE) commercial customers across healthcare, high-tech, biotech, private school and college subsectors (herein referred to as large commercial customers), as well as all commercial subsectors under 200 kW (small-to-midsized businesses, herein referred to as SMBs) not currently being served by another public purpose program funded program.

Program Rationale: CERI was designed to focus on these commercial subsectors due to RI's existing relationships with SCE and RI's strong history of success serving these customers in California. Additionally, commercial customers have high potential for adopting significant energy efficiency and electrification measures.

Program Objectives:

1. Over the program's life, achieve at least:

a. $33,000,000 in Total System Benefit
b. Net kWh savings of 66,000,000
c. A TRC of 1.0

2. Achieve high customer satisfaction with the program

2. Performance Tracking

List the contractual targets and the associated numeric values used to quantify and track program progress and success. This includes TSB for all relevant programs. The contractual targets may include the common metrics,[4] equity and market support indicators,[5] and for RENs, unique value metrics,[6] as relevant.

KEY PERFORMANCE INDICATOR SCHEDULE

KPI	Description	Measurement	KPI Source	Reporting Frequency	Purpose of KPI
Energy Savings (kWh, kW, therms)	A comparison of net lifecycle energy savings achieved vs. net lifecycle energy savings required under the Agreement	Based on numeric value of the total net lifecycle energy savings achieved	In accordance with Article 5	In accordance with Article 5	Track progress towards achieving annual program savings goals
Project Pipeline Target (kWh, kW, therms)	A comparison of net life cycle energy savings associated with future project pipeline in relation to the net life cycle energy savings required under Agreement	Numeric value of the total net lifecycle energy savings tracked in the program pipeline	Progress Report	In accordance with Section 4.07	Track progress towards achieving overall program savings goals
Total System Benefit (TSB) (Dollars)	Total System Benefit (TSB) achieved	Expected performance vs. actual performance	In accordance with Article 1.03	Monthly. Annually	Track Program Cost-Effectiveness
Schedule Adherence	Expected Total System Benefit (TSB) vs. Actual Total System Benefit (TSB); Expected TRC Ratio vs. Annual TRC Ratio	Expected performance vs. actual performance	In accordance with Article 5	In accordance with Article 5	Track progress towards achieving overall program savings goals
Cost Management (TRC ratio)	[Incentive/non-incentive] spend based on paid [incentive/non-	Report of program-to-date incentive/non-	Program invoice	Monthly	Track progress towards achieving program spend

[4] D.18-05-041, Attachment A.
[5] D.23-06-055, pages 59-65, Conclusion of Law 36.
[6] D.19-12-021, pages 2, 23.

(Levelized cost)	incentive] spend vs forecasted [incentive/non-incentive] spend	incentive spend			
Customer Satisfaction Rating	Measurement of Implementer's ability to respond to customer needs, number of complaints, resolution of complaints, flexibility, reporting accuracy and timeliness	Report of overall customer satisfaction rating	In accordance with Section 9.05(f)	In accordance with Section 9.05(f)	Reflects ability to deliver Program at a high level of customer satisfaction
Safety Ratings	Maintain ISNetworld (ISN) grade of B or better	ISN grade	ISNetworld	Annually	Validate adherence to maintaining a culture of workplace safety
Diverse Business Enterprises Spend	To date Diverse Business Enterprise, spend as percent of total Program spend.	Total inception-to-date Diverse Business Enterprise spend divided by the total invoiced amount	As defined in Section 4.05	In accordance with Section 4.05(c)	Validates that the Diverse Business Enterprise commitment is being met
Email	Unsubscribes or opt outs	The average unsubscribe rate across all email campaigns	Marketing Tracking Data	Quarterly	Tracking Marketing and Outreach Effectiveness
Direct Mail (only if applicable)	Unsubscribes or opt outs	The average unsubscribe rate across all direct mail campaigns.	Marketing Tracking Data	Quarterly	Tracking Marketing and Outreach Effectiveness
Telemarketing	Unsubscribes or opt outs	Call Center Software System	Marketing Tracking Data	Quarterly	Tracking Marketing and Outreach Effectiveness

Disadvantaged Worker	Disadvantaged workers employed by program subcontractors, partners or Trade Allies	Number of workers who anonymously self-identify as meeting the definition of a Disadvantaged Worker.	Annual Survey	Annually	Tracking the program's impact on Disadvantaged Workers
Hard-to-Reach Customers	HTR customers served by the program	Number of customers who receive program services or incentives that meet the CPUC criteria for HTR.	Direct Install and Incentive Application Data	Monthly	Tracking the participation rate among HTR Customers
Disadvantaged Communities	Customers in DACs served by the program	Number of customers who receive program services or incentives that reside in an area that meets the CPUC criteria for a DAC.	Direct Install and Incentive Application Data	Monthly	Tracking the participation rate in DACs
Sustainability Ratings	Evaluates the Implementer against environmental and sustainability practices and metrics.	Company progress initiatives for environmental stewardship, social responsibility	Resource Innovations Corporate Sustainability Report	Annual	Demonstrates Implementer's commitment to sustainability

		, and governance. Company carbon footprint in metric tons of CO2e.			

3. Program Delivery and Customer Services

Describe how the EE program will deliver offerings to the market, including program strategies/tactics, delivery types, and targeted market/customer group; how it will reach customers, including those in CPUC-defined underserved, hard-to-reach, and/or disadvantaged communities[7] (if applicable). Describe the timeline and strategy for customer acquisition. Describe all services, incentives and tools that are provided to participants. If applicable, describe planned coordination between this program and other EE programs administered by other PAs in the same sector or segment.

CERI cultivates an experience that will attract customers in the targeted subsectors, overcome program participation barriers, and achieve SCE's goals through the following key features:

- Broad program awareness and access through a network of local trade allies (Market Partners) and FCI Management for small commercial customers and our team's established relationships within SCE's territory. This effort can start immediately.
- Local program experts (Energy Associates) who will bring the program to larger commercial customers, serve as the customer's single point of contact, and facilitate program participation.
- Experienced engineers and program staff with expertise in site- and population-based Normalized Metered Energy Consumption (NMEC) calculations and experience with identifying and implementing electrification measures in commercial buildings.

(i) Program Strategies/Tactics:

CERI offers customers a flexible and simple customer journey that combines a variety of participation options with personalized guidance to illuminate each customer's optimal path. Larger commercial customers will be offered a holistic and ongoing engagement that provides them with a strategic energy plan and results in multiple projects being implemented during the course of their participation. RI's team will coordinate with SCE behind the scenes to manage a variety of complex processes, but the journey for each individual project will be in accordance with the NMEC-Rulebook and any other CPUC requirements and consist of only four to five logical steps: our initial engagement; the on-site visit (which, for larger customers will result in a strategic energy plan); the review, approval, and installation process; and project verification and payment. For Site NMEC projects, customers will be engaged periodically after installation to ensure that savings remain persistence and in-line with expectations.

RI will use all available outreach channels (direct outreach, program website, LinkedIn posts, materials for outreach staff and Market Partners) to recruit customers into CERI, including Energy Associates, SCE Account Representatives, their existing relationships, Market Partners, and program marketing. Through the program's proactive, direct outreach channels, RI will assess the customer's interest in, and capacity for, participating in CERI, and work with them to identify appropriate next steps.

When a customer contacts a CERI program representative, RI will assess the best initial path for them by gathering information such as their facility size and type, any known past program participation or recent energy projects, and the initial project scope they are interested in pursuing and the motivation behind it. The program representative will educate the customer on CERI's benefits and options, and advise them on next steps. At the end of these initial discussions, customers will walk away with either a scheduled

[7] D.23-06-055, Sections 7.2-7.3 and Conclusion of Law 30-33.

appointment to meet with an Energy Associate or information about the Market Partner who will be contacting them.

Program influence is a key focus of these early meetings. RI Energy Associates and Market Partners are trained to identify and track project drivers to ensure project success including, but not limited to the following:

- Clear and concise summary of the main milestones and dates are documented
- Email summaries should be included to serve as evidence for each major milestone including specific mentions of how and who identified opportunities
- How incentives are a financial influence (bringing down the payback period below the customer's requirement) if that's the case
- The customer's decision-making process upon being presented with savings and incentive estimates for a given project must be clearly described for each project
- Need to see the customer's decisionmaker and/or representative in the emails, clearly showing when they were notified of EE opportunities and what they did with that information
- Notation of discussion of non-energy benefits
- Include any/all known utility involvement with dates

During on-site visits, Energy Associates and Market Partners will:

- **Conduct streamlined energy assessments.** RI will perform energy assessments to identify energy-saving measures and/or assess the customer's portfolio of facilities, identify measures, and develop multi-stage strategic energy action plans based on their priorities and the opportunities with the highest savings potential. Energy Associates can provide technical assistance (such as studies) and financial analysis to encourage customers to complete projects.
- **Review reports with customers.** Energy Associates and Market Partners can generate different scenarios for customers and then work with them to narrow down the list of measures they would like to install. Once customers finalize the measures they would like to install, Energy Associates and Market Partners will generate a customized report and review it with customers. The report shows the next steps for the project and complementary programs.

While Market Partners will be able to provide customers with project cost quotes, and many large customers will have their own preferred contractors, CERI will facilitate multiple Market Partner bids as needed. Customers will be free to move forward with the contractor they feel most comfortable with, provided the contractor meets qualification criteria. Based on the scope and customer capacity/priorities, projects will be routed to one of two incentivized pathways:

- Pay-for-performance model through site-based NMEC
- Custom and deemed measures

Once applications are submitted to the program, our team will review them according to measure type:

- **Deemed Measures.** RI will review applications and supporting documentation for deemed measures and perform pre-inspections as required. We review applications for accuracy and

completeness; to verify customer eligibility, measure, and equipment eligibility; and to verify that all required information has been submitted.

- **Custom Measures.** Energy Associates will coordinate with program engineers to perform the required investigations and calculations and draft a detailed report that includes a pre-installation and post-installation measurement and verification (M&V) plan, measure eligibility and type, and baseline information. This approach minimizes customer hassle on complex custom projects and allows our team to thoroughly review the project before submitting it to SCE for review and approval (including CPUC review and approval, when applicable).

Upon receiving Program approval, including SCE and CPUC as required, customers will install projects with support from an Energy Associate to ensure projects are completed in a timely and high-quality manner. If customers need assistance in identifying qualified contractors to install projects, RI will leverage their Market Partner network and provide appropriate referrals.

Once projects are installed, the Energy Associate or Market Partner will help the customer complete and submit an incentive disbursement request form. This form will request final invoices for the project, any modifications to the scope, and any relevant permit documents. Once RI reviews and approves all final documentation, RI will submit the project to SCE for final review and approval prior to incentive payment. RI will conduct post-installation inspections as needed prior to issuing incentives. The post-installation checks are similar to those conducted in the pre-inspection, including checking the operating hours, verifying that the new equipment qualifies, and taking photos for the report. If any assumptions or issues were discovered in the pre-inspection, RI will reexamine them in the post-inspection. RI also continue to identify additional energy efficiency opportunities during the final inspection and share those opportunities with the customer. After completing the report and analysis, RI will perform internal quality assurance/quality control (QA/QC) to ensure that the product delivered is of high quality and meets SCE's expectations.

For deemed projects, RI will perform on-site post-installation inspections on 100% of each Market Partner's initial projects and then ramp down to 15% over time as projects pass inspection, using remote verification methods for the 85% of projects that do not receive on-site inspections. For custom and NMEC projects, RI will perform post-installation inspections and M&V on 100% of projects. RI will work with SCE's engineering team and the California Public Utilities Commission (CPUC) on project reviews when needed.

RI will use project development and management software to facilitate direct installs and assessments, manage the Market Partner network, review applications, manage program data and reporting, and verify submitted projects.

The Resource Innovations (RI) team will employ the following outreach strategies to reach potential participants:

- **Conduct Relationship-Based and Other Direct Outreach.** RI's Energy Associates will leverage and expand existing relationships with customers, SCE Account Representatives, Market Partners, and other market actors to identify leads, reach key decision makers through direct outreach, and develop relationships with new, targeted customers.

- **Develop Personalized Sales Enablement and Marketing Tools.** RI will create customer-focused sales enablement and marketing materials and collateral to increase customer education and awareness of the program, validate and create equity in the program, and encourage action. Examples include developing and launching user-friendly and informative websites with concise program information and clear paths to confirm eligibility and enroll in the program, and develop digital and print materials for direct outreach efforts and to post on the website.
- **Conduct Targeted and Multi-Channel Campaigns.** Using advanced data analytics and other targeting and lead generation methods, RI will reach our target audiences and decision makers — with a focus on DACs and HTR customers — with appropriate messaging through the appropriate channels to increase program participation.

(ii) *Delivery Type(s):*

- Downstream and Downstream - Direct Install

(iii) Targeted Market/Customer Group:

- Large commercial customers in the high-tech, biotech, healthcare and private schools' subsectors
- All commercial customers <200 kW

4. Program Design and Best Practices

Describe the specific program strategies/tactics to reduce the identified market barriers for the targeted customer group and/or market actor(s) to achieve program goals and objectives. Describe how the program approach constitutes "best practices" and/or incorporates "lessons learned." Include descriptions of key software tools that are significant to program strategy and implementation, including audit tools. Provide references where available.

The table below provides an overview of the identified market barriers for the targeted customer groups, and the best practices built into CERI's design to enable the program to overcome them.

Market Barrier	Barrier Details	Best Practices to Overcome Barriers
Lack of awareness, expertise, time, and installation support	Customers are unable to identify, quantify, and install energy efficiency projects	• Use comprehensive customer engagement to boost awareness • Provide technical assistance to identify and quantify measure impacts • Offer turnkey implementation services • Refer customers to qualified Market Partners

Complexity of approvals	Customers require multiple internal approvals across business units – and must comply with state regulatory requirements – resulting in slow or unfinished projects	• Energy Associates identify key customer decision makers; develop strong trusting relationships; and provide highly personalized assistance, messaging, and support to gain approvals • Provide expert planning and compliance support, when necessary, to streamline approvals
Lack of funding	Customers lack funding for energy efficiency due to overriding priorities – patient or student services will nearly always be prioritized over maintenance/facility upgrades	• Energy Associates help customers recognize and report up the full scope of project benefits • Provide financial incentives and integrated financing options
Large multi-site systems	Customers struggle to strategically develop and implement energy-focused projects across their portfolio	• Energy Associates develop portfolio-level strategic energy action plans • Provide technical assistance, identify site-specific measures and replicable cross-site measures • Offer turnkey implementation services
Sensitive and risk-averse facilities	Customers have zero risk tolerance for projects that impact patient and student experience and outcomes	• Energy Associates understand customer issues • Provide technical assistance, consider customer requirements • Use sales materials to highlight similar successful projects
Security of data, facility, and IT systems	Customers' strict privacy/security measures around facility access, patient data, and IT systems often create project challenges and delays	• Energy Associates identify security concerns and coordinate approvals • Delivery partners and Market Partners are highly qualified and meet all customer requirements

CERI will also utilize a proven software system, iEnergy, that provides accurate, reliable data management, program tracking and reporting, measure forecasting, and energy assessments. SCE is successfully using iEnergy for numerous programs, including Energy Savings Assistance (ESA), Simplified Savings, commercial energy efficiency programs, and transportation electrification programs

5. Innovation

(Required for all IOU EE programs designed and implemented by a third party.)[8] *Describe the innovative elements that have been incorporated into the program, i.e., advancing a technology, marketing strategy, or delivery approach in a manner different from previous efforts.*[9] *Explain how these will improve program outcomes and if relevant, minimize lost opportunities for promoting other integrated demand side management (IDSM) energy reduction efforts. Describe how the performance of these innovative elements will be measured or assessed.*

The larger commercial subsectors we are targeting – healthcare, high-tech, biotech, and private education institutions – can be challenging to navigate for inexperienced implementers. Competing priorities; sensitive patient, student, and/or customer areas; diverse facilities within a single campus; relatively tight windows of opportunity for installations; and burdensome regulatory compliance requirements (i.e., HCAI) dissuade most of these subsectors from undertaking all but the most basic energy projects. Our team will work with customers to demonstrate how energy efficiency-related projects help their bottom line and customer/staff outcomes. A tailored program and expert partner are the most critical elements needed to help healthcare, high-tech, biotech, and private school customers realize significant benefits.

Through our team's successful history of serving the healthcare, high-tech, biotech, and private institution sectors, we are familiar with these segments and understand where existing programs succeed or fail. CERI includes the following experience-based innovations that will lead to greater participation, energy savings, and customer satisfaction.

Technology Innovations

Implement advanced technical solutions for sensitive facilities. Complex healthcare, high-tech, biotech, and education facilities require tailored solutions delivered in a way that does not impact customer and student outcomes or sensitive equipment. We have extensive experience identifying and implementing advanced energy technologies and measures that are no longer considered emerging technologies but are not yet fully integrated into the market. Some examples include:

- Controls upgrades for operating rooms and high-tech/biotech facilities to enable optimization of pressurization, airflow, and scheduling, using a phased approach to minimize disruptions.
- Occupancy-based flow setbacks, air exchange optimization, and humidity controls for pharmacy and high-tech/biotech cleanrooms including specialized equipment such as HVAC filtration systems and hoods for high-tech sites, or IV prep workflow stations for biotech companies.
- Installation and optimization of high-efficiency central chiller and heating plants and controls including sophisticated staging, resets, lockouts, flow and temperature setbacks, and free cooling.

Upgrade HVAC controls capabilities and strategies in schools to address their unique operating hours and conditions. Many school facilities have little to no HVAC controls capabilities, and the savings resulting from controls optimization have shown improvements in energy usage, academic performance and attendance due to increased air quality for students.

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[8] D.16-08-019, Section 5.2 and Conclusion of Law 26.

[9] See "Innovation and Integrated Demand Side Management (IDSM) References" document at https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/rolling-portfolio-program-guidance.

Ensure persistent savings through a holistic approach to projects. Existing energy efficiency programs serving the healthcare, high-tech/biotech and private institution segments do not often support or emphasize persistence of savings. CERI encourages, supports, and enables persistence of savings for every project.

Market Strategy Innovations

Align incentives with customer priorities through flexible participation pathways. Custom incentives will be aligned to each customer's specific priorities through deemed, NMEC, and custom pathways. These offerings will result in higher uptake of energy efficiency projects compared to traditional incentive designs.

Move high-value projects forward through creative, non-monetary incentives. To further motivate customers when monetary incentives are not enough, CERI will use innovative, discretionary non-monetary incentives such as deeper technical assistance, employee engagement activities, media recognition or awards to highlight successful projects and repeat customers, and hosting efficiency "treasure hunts" with the customer's key decision makers. Other successful strategies may include engaging facility-level engineers or maintenance staff by offering nominal awards (e.g., Stanley cups, Carhartt jackets) for meeting project savings and timeline goals. These are proven but underutilized strategies with strong anecdotal results.

Delivery Approach Innovations

Implement a portfolio-level outreach strategy for customer engagement.
CERI incorporates a portfolio-level outreach approach that engages executives, regional oversight staff, and building engineers at healthcare, high-tech/biotech, and private education companies to gain access to their portfolio of facilities. This portfolio-level outreach approach is proven to increase the quantity of projects and decrease marketing and outreach costs per customer. RI piloted our approach with four large PG&E healthcare customers and developed 48 projects in three years that are expected to save 17.5 GWh and 356,000 therms.

Deploy Energy Associates to boost customer engagement, enrollment, and savings.
Energy Associates will provide personalized concierge-level services to healthcare, high-tech/biotech, and private school customers throughout the project lifecycle to ensure program success and persistent energy savings.

Offer support and targeted bonuses to address the persistent market barrier of competing priorities.
Energy Associates will provide targeted support to help project champions expedite and overcome the barriers of internal approvals, understand and communicate the full benefits, and encourage quicker project installation. Under exceptional circumstances, we may also offer customers a monetary bonus to complete projects quickly.

On-site and virtual assessments to reach more customers.
We will offer both on-site and virtual energy assessments based on participant preferences. Using our live-streaming virtual assessment tool, our virtual assessments are as rigorous as our on-site assessments. The ability to identify energy savings measures remotely saves a significant amount of time by lowering auditing costs, quicker turnaround times, minimal disruption to the customer, scalable for customers with multiple locations, and makes hard to reach customers more accessible.

6. **Pilots**

If applicable, describe any pilot elements or projects that are part of this program, including what is being tested and why and addressing the potential for successes to be identified, replicated and scaled more broadly. Describe how lessons learned in the pilot will be gathered, applied, and shared.

N/A

7. Workforce Education & Training (WE&T) [10]

(Applicable to WE&T programs only.) Describe how the program will support workforce, education, and training to:

a. *Expand/initiate partnerships with entities that do job training and placement.*

b. *Require placement experience for any new partners in the workforce, education, and training programs and new solicitations. Establish clear program guidelines, expectations, and outcomes for program partners to ensure satisfaction for both employers and program participants.*

c. *Require "first source" hiring from a pool of qualified candidates before looking more broadly, beginning with self-certification; and ensure program partners are supporting candidate recruitment efforts*

d. *Facilitate job connections by working with implementers and contractor partners, and utilizing energy training centers.*

e. *Capitalize on partnerships with private universities enrolled in CERI for candidate recruitment, ongoing training, and networking opportunities*

The Program will embed workforce development activities into its design and implementation in partnership with the following Trade Allies:

California Green Business Network

In previous engagements, the network of Green Business Programs in the CAGBN has employed underserved individuals from green job training programs, community colleges, and CBOs focused on workforce development. These individuals have traditionally been program employees, interns (many of whom became employees), or contractors. CAGBN is affiliated with Workforce Development Boards across SCE's territory and understands where to find individuals who fit the required training and are most in need of work. For the Program, CAGBN will:

- Recruit individuals from these same training programs that have been used in the past, especially in underserved communities or DACs.
- Leverage CBOs to support their efforts in employing individuals with the right culture and language fit for a particular community.

Workforce Development

RI will operate the Program's workforce development initiative, working closely with CBOs and other organizations to recruit disadvantaged workers. Candidates may be supported to enter a job-training program that will provide them with new skills and experience and facilitate job placement in well-paying positions in the clean energy industry. The details of the workforce development initiative will be included in the Workforce Development Plan deliverable.

[10] D.18-05-041, Page 20-21 and Ordering Paragraph 7.

Resource Innovations will verify that the TA employees involved with these projects meet or exceed the CPUC standards by tracking certifications and training through the iEnergy software platform. Participating TAs will be required to provide documentation of the applicable licensing, certifications, or training for all participating staff. Through iEnergy, RI will be able to identify the TAs and staff that meet the HVAC workforce standards and support them in maintaining or achieving the necessary certifications and training to help ensure the highest quality installations.

8. Workforce Standards [11]

Identify all relevant workforce standards that the Implementer deems applicable to the Program, including any specific skills certification and/or broader occupational training and experience for the following:

a. HVAC Measures: Installation, modification, or maintenance of non-residential HVAC measures with an incentive of $3,000 or more are required to be installed by workers or technicians that meet one of the following criteria:

1. Enrolled in and/or completed an accredited HVAC apprenticeship, or

2. Completed more than five years of work experience at the journey level per California Department of Industrial Relations definition, passed competency tests, and received specific credentialed training, or

3. Has a C-20 HVAC contractor license issued by the California Contractor's State Licensing Board.

b. Advanced Lighting Control Measures:

i. Installation of non-residential lighting control measures with an incentive of $2,000 are required to be installed by installation technicians who have completed an International Association of Lighting Management companies (NALMCO) Certified Lighting Controls Professional (CLCP) certification.

HVAC Measures

Certain HVAC measures within the Program are likely to exceed the incentive thresholds set within D.18-10-008, and therefore will require that all TA employees involved with the installation of those measures meet the CPUC's specified workforce standards. Resource Innovations will coordinate with HVAC training and education organizations to identify contractors that have the CPUC-mandated certifications and provide resources to other TAs as to how they can obtain the required certifications. For all projects and for each measure, installed, modified, or maintained in a non-residential setting where the project is seeking an energy efficiency incentive of $3,000 or more, RI shall ensure that each worker or technician involved in the project meets at least one of the following criteria:

- Enrolled in and/or completed an accredited HVAC apprenticeship

[11] D.18-10-008, Ordering Paragraph 1-2 and Attachment B, Section A-B, Page B-1.

- Completed more than five years of work experience at the journey level per the California Department of Industrial Relations definition, passed competency tests, and received specific credentialed training
- Has a C-20 HVAC contractor license issued by the California Contractor's State Licensing Board

Advanced Lighting Control Measures

It is expected that lighting controls will be required for some projects, such as high/low bay LED lighting installations. In accordance with CPUC requirements, for all lighting projects and for each lighting measure eligible for an energy efficiency incentive of $2,000 or more, RI will ensure that all workers or technicians involved in the project are certified by the California Advanced Lighting Controls Training Program (CALCTP).

9. Disadvantaged Worker Plan: [12]

(Applicable for programs that directly involve the installation, modification, repair, or maintenance of EE equipment.) Describe how the program will provide Disadvantaged Workers with improved access to career opportunities in the EE industry and the method that will be used for tracking this population in order to satisfy metric reporting requirements.

The RI team will collect anonymous information on disadvantaged workers employed by the TA partners and subcontractors by sending voluntary surveys to them for distribution to their workforce on an annual basis to track their inclusion and training efforts. Metrics related to the participation of disadvantaged workers within the Program will be tracked and reported on a quarterly basis.

[12] D.18-10-008, Attachment B, Section D, page B-9.

10. **Market Access Programs:**

(Applicable to market access programs only.) Describe how the market access program interacts with the rest of the PA's EE portfolio. Describe the possible impacts with downstream retrofit programs.[13]

N/A

[13] D.23-06-055, Ordering Paragraph 26.

11. **Additional Information**

Describe additional information required by CPUC decision, resolution, or ruling, as applicable. Indicate decision, resolution, or ruling and page numbers.

N/A

4. Supporting Documents

1. Program Manuals and Program Rules

All programs must have manuals[14] uploaded in CEDARS to clarify the eligibility requirements and rules of the program for implementers and customers. Program rules must comply with CPUC policies and rules. At minimum, these manuals should include:

1. ***Eligible Measures or measure eligibility, if applicable:*** *Provide requirements for measure eligibility or a list of eligible measures.*
2. ***Customer Eligibility Requirements:*** *Provide requirements for program participation (e.g., annual energy use, peak kW demand, NAICS code).*
3. ***Contractor Eligibility Requirements:*** *List any contractor (and/or developer, manufacturer, retailer or other "participant") or sub-contractor eligibility requirements (e.g. specific required trainings; specific contractor accreditations; and/or, specific technician certifications required).*
4. ***Participating Contractors, Manufacturers, Retailers, Distributors, and Partners:*** *For upstream or midstream incentives and/or buy down programs indicate, if applicable.*
5. ***Additional Services:*** *Briefly describe any additional sub-program delivery and measure installation and/or marketing & outreach, training and/or other services provided, if not yet described above.*
6. ***Audits:*** *Indicate whether pre- and/or post-audits are required, if there is funding or incentive levels set for audits, eligibility requirements for audit incentives, which demand side resources will be included within the audit's scope and who will perform the audit.*
7. ***Program Quality Assurance Provisions:*** *Please list quality assurance, quality control, including accreditations/certification or other credentials.*
8. ***Other Program Metrics:*** *List all documentation and data used to calculate Program Metrics.*

Refer to the attached CERI Program Manual.

2. Program Theory and Program Logic Model [15]

Program Theory and Logic Models should visually represent and explain the underlying program design and theory of change, supporting the program intervention approach and strategies and demonstrating how these lead to outcomes.

Refer to the attached CERI Program Logic model.

[14] "Manuals" are defined as materials given to implementers and customers, not internal process documents.

[15] The graphical representation of the program theory showing the flow between activities, their outputs, and subsequent short-term, intermediate, and long-term outcomes. *California Evaluation Framework*, June 2004.

3. Process Flow Chart

Provide a process flow chart that describes the administrative and procedural components of the program. For example, the flow chart might describe:

- *How a customer submits an application*
- *How the Implementer screens the application*
- *The application approval or disapproval process*
- *Verification of purchase or installation*
- *Incentive processing and payment, and*
- *Any quality control activities.*

Refer to the attached CERI Process Flow.

4. Measures and Incentives

For deemed measures, provide a summary table of measures and customer incentive levels, along with links to the associated CPUC-approved measure packages.[16] *For programs utilizing custom or meter-based methods, list the measures expected to provide the majority of program savings and percent TSB achieved of each.*

#	Measure	Incentive Level*	Link to Measure Package
1	Heat Pump Water Heater, Commercial, Fuel Substitution		https://www.caetrm.com/measure/SWWH027/04/
2	Economizer Controls, Commercial		https://www.caetrm.com/measure/SWSV010/03/
3	Economizer Repair, Commercial		https://www.caetrm.com/measure/SWSV005/03/
4	Software-Controlled Switch Reluctance Motor		https://www.caetrm.com/measure/SWHC041/05/
5	ECM Retrofit for a Walk-in Cooler or Freezer		https://www.caetrm.com/measure/SWCR004/02/
6	Exhaust Hood Demand Controlled Ventilation, Commercial		https://www.caetrm.com/measure/SWFS012/03/
7	VSD for HVAC Fan Controls, Commercial		https://www.caetrm.com/measure/SWHC018/04/
8	Variable Speed Drive for a Central Plant System		https://www.caetrm.com/measure/SWHC008/02/

[16] See California Electronic Technical Reference Manual (eTRM).

9	Supply Fan Controls, Commercial		https://www.caetrm.com/measure/SWHC009/04/
10	HVAC Occupancy Sensor, Classroom		https://www.caetrm.com/measure/SWHC012/03/

*Incentive levels for these deemed measures will be determined by RI on a project per project basis while adhering to the incentive caps by MAT (i.e. IMC for NR, ARC for AR and FMC for AOE and BRO) except for fuel substitution measures where incentives higher than incentive caps can be provided.

5. Diagram of Program

Provide a one-page diagram of the program visually illustrating the program's relevant direct linkages to areas such as:

- *Statewide and individual IOU marketing and outreach*
- *Workforce Education and Training (WE&T) programs*
- *Emerging Technologies (ET) and Codes and Standards (C&S), and*
- *Integrated efforts across Demand Side Management (DSM) programs.*

Refer to the attached CERI Program Diagram.

6. Program Measurement and Verification (M&V):

(Applicable and required for all programs except those solely utilizing NMEC methods, which are addressed in item 7 below.) Describe M&V efforts that the program will execute to evaluate program progress, ensure accurate and compliant assessment and reporting, and provide critical documentation to support ex-post evaluation (EM&V), including:

a. *Data collection strategies embedded in the design of the program or intervention to support near-term feedback, and internal performance analysis during deployment*

b. *Methods that will be used to quantify and report against the program's performance metrics.*

c. *Process evaluation, additional data collection and/or other planned efforts supporting future EM&V of the program by independent evaluators.*

d. *New downstream Resource Acquisition retrofit programs targeting the residential or commercial sectors that will not utilize a meter-based M&V method (i.e., NMEC, SEM M&V, Randomized Control Trial or other meter-based method) must justify why meter-based methods are not used for feasibility or cost-effectiveness reasons.*[17]

[17] D.23-06-055, Ordering Paragraph 20.

Normalized Metered Energy Consumption (NMEC) Program M&V Plan:

If NMEC is applicable, provide a detailed Program-level M&V plan, with required content as specified in the most recently updated NMEC Rulebook.

Refer to the attached CERI Program Measurement and Verification (M&V) Plan.

7. **Multi-DER IDSM Pilots only:** [18]

Provide the specific ex ante approach, tools, and methodologies to ensure evaluability.

NA

8. **SEM Programs only:**

Provide additional supporting documents as described in the SEM Program Implementation Plan Checklist (Appendix A).

NA

[18] D.23-06-055, pages 77-80.

Attachments:


1. CERI Program Manual.pdf


2. CERI Logic Model.pdf


3. CERI Process Flow.pdf


5. CERI Program Diagram.pdf


6. CERI Program Measurement and V

Appendix A. Strategic Energy Management (SEM) Program Implementation Plan Checklist

Purpose

This Appendix contains additional requirements for SEM program Implementation Plans.

For all SEM programs the following must be included in the respective Implementation Plans. The SEM requirements will be either added to existing sections or in a standalone section within the Implementation Plan, as referenced below.

The inclusion of the program elements outlined below are essential to the SEM allowance of a Net-To-Gross of 1.0 and existing conditions baseline. To continue to support alignment with the SEM Guides and the associated benefits, specific program elements listed below should be included in the Implementation Plan. No personal, confidential or proprietary information is needed as part of the inclusion of these additional. Implementation Plan descriptions. These SEM specific Implementation Plan descriptions are necessary to demonstrate how the program adheres to the California *SEM Design Guide* (Design Guide) [19] and the *SEM M&V Guidebook*.[20]

1. Narrative Requirements

The Implementation Plan Narrative should include the following details for SEM programs:

- ☐ **A general description of potential measures and projects** to be included in customer treasure hunts and opportunity registers such as behavioral, retro-commissioning, and operational (BRO), deemed, and custom capital measures. (Incorporate content in Implementation Plan Narrative Section 1. Program Description.)
- ☐ **A detailed narrative of the SEM activities, milestones, and objectives** to be pursued as portrayed in the *Design* and *M&V Guides*.[21] These activities, milestones, and objectives should align with those included in the SEM program timeline (described in the Supporting Documents section below). (Incorporate content in Narrative Section 1: Program Description.)
- ☐ **List of roles and responsibilities** for the portfolio administrator, program implementor, and participant roles, including the Data Owner, Energy Champion, Energy Team, and Executive Sponsor. (See the *Design Guide* for an example.) Describe the plan for filling and communicating these roles to the customer participants, including a clear description and expectation of the commitment involved in participating in a long-term SEM engagement. (Incorporate content into Narrative Section 3. Program Delivery and Customer Services.)
- ☐ **List of market sectors and/or sub-sectors** that will be targeted in the Implementation Plan. (Incorporate content into Narrative Section 3: Program Delivery and Customer Services.)
- ☐ **Participation Cohort objectives:** Include the estimated range of the number of participants/customers targeted to take part in each cohort, and how many cohorts are anticipated for the program. (Incorporate content into Narrative Section 3: Program Delivery and Customer Services.)

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[19] SEM Design Guide is located: https://pda.energydataweb.com/#!/documents/2647/view.

[20] SEM M&V Guidebook is located: https://pda.energydataweb.com/api/view/2648/CA_SEM_MV_Guide_v3.02.pdf.

[21] A list of M&V and reporting activities can be found in the Design Guide section 4.1 and M&V Guide section 14.1.

☐ **A "Tailored Program" section** to provide a list of program design divergences, including shorter term engagements, from the Statewide *SEM Guides*. Include corresponding references for each item on this list`, and/or the guidebook. The divergence descriptions should include why the divergence is needed and how the program will still adhere to the most current *SEM Guides* in order to demonstrate compliance with D.23-02-002. (Incorporate content in Narrative Section 11. Additional Information.)

2. Supporting Documentation

Supporting Documents: The following should be included in the supporting documents section of the Implementation Plan:

☐ **A program logic model** with corresponding SEM program performance metrics. An example can be found in the Section 4.2.2 of the *SEM Design Guide*. Note: These logic models will be used for evaluation purposes to help determine that SEM objectives and activities have been incorporated in the program design. (Incorporate content into Supporting Documents Attachment 2. Program Theory and Logic Model.)

☐ **A table identifying the potential types of incentives that will be considered for each type of measure** that may be applied (e.g., SEM and Non-SEM capital/custom incentives, deemed rebates, SEM milestone payments, etc.). (Incorporate content in Supporting Documents Attachment 4. Measures and Incentives.)

☐ **An M&V and reporting activities section** as described in the most recent version of the *SEM M&V* and *Design Guides*. Overlay key reporting submissions as points along the program timeline calendar referenced above. (Incorporate content in Supporting Documents Attachment 6. Program M&V)

☐ **A program timeline** that documents all SEM activities and milestones that will be pursued throughout each SEM program cycle. (See the *Design Guide* Table 1, Table 6, and Table 13 for an example). Note that timeline activities may change and therefore the program timeline is non-binding but should be revised as necessary in the Implementation Plan posted on CEDARS. Note: The timeline is not required to show specific dates. (Provide content in Supporting Documents Attachment 9. SEM Programs.)

☐ **A schedule and description of educational modules,** including when they will be provided within the program timeline described above. These descriptions should describe the curricula, the educational objectives, and tools used to support these objectives, including IDSM and GHG educational components as described in the *Design Guide* in Sections 2.1.3 and 2.1.4. (Provide content in Supporting Documents Attachment 9. SEM Programs.)

Appendix B. List of Acronyms and Abbreviations

Term	Definition
C&S	Codes & Standards
CALCTP	California Advanced Lighting Controls Training Program
CCA	Community Choice Aggregator
CEDARS	California Energy Data and Reporting System
CO_2	Carbon dioxide
CPUC	California Public Utilities Commission
DAC	Disadvantaged Communities
DEER	Database for Energy Efficient Resources
DER	Distributed Energy Resources
DSM	Demand-Side Management
EE	Energy Efficiency
EE PRG	Energy Efficiency Procurement Review Group
EM&V	Evaluation, Measurement & Verification
ET	Emerging Technologies
eTRM	[California] Electronic Technical Reference Manual
EUL	Effective Useful Life
HTR	Hard-to-Reach
HVAC	Heating, Ventilation, & Air Conditioning
IDSM	Integrated Demand-Side Management
IOU	Investor-Owned Utility
IP	Implementation Plan
kW, kWh	kilowatts, kilowatt-hours
M&V	Measurement & Verification (or, sometimes, Validation)
MAP	Market Access Program
NAICS	North American Industry Classification System
NMEC	Normalized Metered Energy Consumption
PA	Program Administrator
PAC	Program Administrator Cost
RCT	Randomized Controlled Trial
REN	Regional Energy Network

Term	Definition
RFA	Request for Abstract
RFP	Request for Proposal
SEM	Strategic Energy Management
TRC	Total Resource Cost
TSB	Total System Benefit
WE&T	Workforce Education & Training

resource innovations

Program Manual for CERI

Contents

1. Eligible Measures

CERI provides incentives for Energy Efficiency (EE) interventions through three different platforms: Deemed, Custom, and NMEC. Eligibility criteria for each of these platforms are discussed in the following subsections. In addition, the following eligibility criteria applies to all platforms:

- Measures must be more efficient than pre-existing conditions
- Projects receiving incentives through this program cannot receive incentives for the same interventions through any other program, regardless of channel (e.g. downstream, midstream, or upstream), provider (e.g. other utilities, the California Energy Commission, or the California Public Utilities Commission), or platform (e.g. deemed, custom, meter-based) offering.
- Incentives are not paid in excess of the measures' installation cost
- All measures are required to have strong technical support for the claimed energy savings. The technical support can be based on Energy Efficient Resources (DEER), electricity Technical Resource Manual (eTRM), CPUC approved Workpapers, or engineering modeling

Based on our team's program design, delivery, and evaluation expertise, CERI is anticipated to deliver comprehensive energy savings through a full assortment of prescriptive and custom measures reflecting the current needs of modern private institutions and healthcare facilities. In addition to offering measures that address HVAC systems, refrigeration, and lighting upgrades, CERI will integrate multiple intervention strategies to all eligible commercial customers with demand under 200 kW. We will primarily seek to address facilities through metered solutions in a pay-for-performance model, as the inherent transparency of the process provides the best opportunity to right-size incentives.

We have developed a proposed portfolio of measures selected from the DEER Database and current measure packages, which are feasible to implement and have strong TRC values. Deemed measures exclude midstream and upstream measures.

The major focus will be on RCx measures. We will leverage our team's technical expertise to provide detailed guidance and M&V plans to potential customers to ensure proper implementation for RCx measures. Since these measures use the existing condition baseline and have comparatively lower capital requirements, they will contribute to the program's cost-effectiveness. We will follow CPUC guidelines and

use CPUC-reviewed and -approved calculation methodologies for custom and NMEC projects to shorten the review time for these RCx projects.

1.1 Deemed

- RI will review applications and supporting documentation for deemed measures and perform pre-inspections as required.

- In order to quality for a rebate, program participants must follow all applicable measure level requirements. This includes, but is not limited to: building type, climate zone, and delivery type.

- We review applications for accuracy and completeness; to verify customer eligibility, measure, and equipment eligibility; and to verify that all required information has been submitted.

- We will use CPUC-approved measure packages, previously known as workpapers, and will adhere to all the requirements within the applicable measure package. We will also offer to facilitate SCE's OBF option for applicable projects.

    - We will include all relevant deemed measures in CERI to facilitate comprehensive facility upgrades. Deemed measures are not the program's primary target; however, with simple implementation procedures and rebate applications, we will submit measures under the deemed platform whenever appropriate to encourage greater program participation.

1.2 Custom Measures

- Incentives are determined using approved M&V methodology at the post-installation stage and are based on verified energy savings. The final incentive may be different (either greater or less) than the committed incentive that is estimated at the time of project application.

- To qualify for incentives, the customer's reduction in energy usage due to the EE measure must coincide with periods the customer is purchasing energy from the utility and thus reducing grid/system impact.

- Customer projects are subject to the CPUC customer project review process as established by the Commission Decision.

- Customer measure equipment may not be ordered, purchased, or installed before SCE has provided written project approval.

- Proposed measures must be more efficient than existing equipment. Installing equipment that is of the same efficiency as the existing equipment, even if existing equipment is no longer operational, is defines as a like-for-like replacement, which is not eligible for incentives.

- Projects must be installed, commissioned, and submitted for post-installation review before the approval expiration deadline.

- Energy Associates will coordinate with program engineers to perform the required investigations and calculations and draft a detailed report that includes a pre- installation and post-installation measurement and verification (M&V) plan, measure eligibility and type, and baseline information. This approach minimizes customer hassle on complex custom projects and allows our team to thoroughly review the project before submitting it to SCE for review and approval (including CPUC review and approval, when applicable).

1.3 NMEC

- Each site's own pre-intervention data, normalized to post-intervention conditions, serves as a baseline against which to measure savings.

- Energy metered data should be available for at least the 12 months before and 12 months after implementation.

- The following measures are permissible through NMEC:

    - Measure allowable through the deemed and custom platforms,

    - Other measures where the program documentation and program-level M&V Plan demonstrates that the savings EUL forecasts are reasonable for these measures

    - Behavioral, retro-commissioning, and operational measures are allowed-including maintenance and repair. Maintenance and repair measures should follow the guidance and additional requirements as described in the CPUC's NMEC Rulebook.

1. Emerging Technologies

- Controls upgrades for operating rooms and high-tech/biotech facilities to enable optimization of pressurization, airflow, and scheduling, using a phased approach to minimize disruptions.

- Occupancy-based flow setbacks, air exchange optimization, and humidity controls for pharmacy and high-tech/biotech cleanrooms including specialized equipment such as HVAC filtration systems and hoods for high-tech sites, or IV prep workflow stations for biotech companies.

- Installation and optimization of high-efficiency central chiller and heating plants and controls including sophisticated staging, resets, lockouts, flow and temperature setbacks, and free cooling.

2. To-code savings

- RCx projects are one example where multiple to-code measures are likely to be implemented, as we often encounter conditions where restoring equipment operations to code or standard practice yields significant savings. This is distinct from advanced commissioning, which will also be provided by CERI, where we suggest better controls than code or standard practice to achieve higher efficiency where possible.

- Another example would be AOEs and NRs with to-code savings where a) add-on equipment will bring the host equipment to code/standard practice, or b) new equipment specified and installed is considered to-code due to design of systems in place and updating them to exceed code/standard practice may need drastic changes which might not be feasible to a point and require substantial amount to upgrade the system holistically.

- Regarding interventions that would effectively accelerate equipment runover, older, less-efficient equipment will be replaced with equipment that exceeds code by

    - Working closely with a customer's design and engineering team by providing technical support/education in equipment selection and

2. Customer Eligibility

The program is for healthcare, high-tech, biotech, private school, and college subsectors, and all commercial subsectors under 200 kW that are not served by SCE's Simplified Savings or other commercial or equity programs. To be eligible to participate in the program, any savings claims must be associated with an active SCE electric or gas meter, and the customer must pay the Public Purpose Programs (PPP) surcharge associated with the meter for which savings will be affected.

We will also collect the following data elements.

Data Elements	**Data Element Description**	**Map to Program Function**
Number	ID of customer	Customer eligibility checks Eliminating participant double-dipping and/or double-counting of savings (when applicable)
Customer Company Name	Official name of company on account	Customer targeting; Customer eligibility checks; Eliminating participant double-dipping and/or double-counting of savings (when applicable)
Customer Active flag	0/1	Customer eligibility checks
Customer Sector name	Business sector of customer (e.g. commercial, industrial)	Customer targeting; Customer eligibility checks
Bill Account number	ID of bill account	Customer eligibility checks
Bill Account Active flag	0/1	Customer eligibility checks
Bill Account Start Date	Starting date of bill account with SCE	Customer eligibility checks
Site Number	ID of physical site	Customer eligibility checks; Execution of the program for enrolled customers
Site Active flag	0/1	Customer eligibility checks

Meter Active flag	0/1	Customer eligibility checks
Rate schedule	billing rate schedule of meter	Customer eligibility checks
Customer attribute 1	Rolling 12-month sum of kWh Usage of customer	Customer eligibility checks
Customer attribute 2	Rolling 12-month max of kW Usage of customer	Customer eligibility checks
Site Attribute 1	Service Account Number (not Site ID)	Customer targeting; Customer eligibility checks; Eliminating participant double-dipping and/or double-counting of savings (when applicable

3. Contractor Eligibility Requirements

Per the CPUC guidelines, all measure(s) must be installed in accordance with all applicable federal, state, and local laws, building codes, manufacturers' specifications, and permitting requirements. If a contractor performs the installation or improvement, the contractor must hold the appropriate license for the work performed.

4. Participating Contractors

The program is downstream.

5. Additional Services

In addition to delivering energy savings through qualifying measures, the program provides the following additional services to the program participants:

- Tailored solutions, concierge-level support, multi-stage strategic engagements, expert technical assistance, innovative incentives and financing solutions, and turnkey project facilitation and implementation
- Per customers' request, the program can provide end-to-end turnkey services from project development and design, through installation and measurement and verification (M&V).
- Applicable projects may receive discretionary non-monetary incentives

- Assistance with financing options and services including on-bill financing (OBF) and traditional products

- The program can provide customer-specific energy usage heat map visualizations to inform customers of their energy usage trends.

6. Audits

The program provides energy audits to select program participants to identify and quantify electric and gas opportunities and conduct measurement and verification of savings. Audits are performed by the program team and Market Partners and may be performed pre-installation, post-installation, or both. Among other factors, complexity of the energy systems determines the need for an audit. Audits may include collecting onsite equipment operation information with pictures of other documentation. When applicable, a virtual audit can be performed instead of an in-person audit.

By participating in the program, customers are agreeing to allow audits and site inspections required by the program team or SCE to be conducted. Although not all projects receive audits, they are all subject to inspection at Program discretion.

7. Program Quality

All project deliverables including but not limited to technical reports, engineering calculations and analysis are reviewed by the program Quality Control (QC) team prior to their submission to the customer and SCE. The QC process is conducted by senior staff and includes review of project elements such as measure eligibility, baseline selection and modeling, measure identification, data analysis, savings calculations and technical reports. The review process incorporates both engineering checks and eligibility evaluations. The QC team also reviews the project reports to ensure accurate, clear and comprehensive reporting to all report recipients including customer and SCE.

In addition to individual project deliverables, the program deliverables, processes, and approaches are continuously assessed for quality control and enhancements.

All projects developed for CERI will undergo a rigorous internal Quality Assurance/Quality Control process prior to SCE and CPUC review based on accuracy, comprehensiveness, and coherency. This process will ensure that experienced staff have reviewed all pertinent content prior to submission, including those projects submitted by Market Partners. We ensure every deliverable prepared by our team

undergoes at least one QA/QC review by a qualified engineer or by the QC Manager. Elements of our QA/QC procedures include:

- Reviewing critical aspects of the application and energy calculations by a second engineer to ensure accuracy, consistency, and completeness

- Conducting on-site project inspections on a subset of projects to ensure alignment of the site conditions with the application

On a project level, our experienced Energy Associates provide oversight of all activities, including energy audits, savings calculations, project economics, implementation, and final documentation, including M&V, with additional reviews and support provided by program and engineering management.

On-site project inspections will be conducted on a random sample of installed projects to ensure that all involved are continuously completing quality installations, reporting accurate information, and providing the required documentation for installations. An additional check on the accuracy and completeness of the documentation submitted for a project by a Market Partner is conducted as a desk review by Resource Innovations' check processing team on every project prior to payment.

As part of the CERI QA/QC process, we will:

- Perform inspections of each Market Partner at each stage of the project delivery process not (engagement, audit, submission, installation, and verification) to provide continuous oversight of their installations

- Select projects for post-installation inspections based on a randomized sampling or weighted based on past performance of installers; random post inspection selections will occur weekly or bi-weekly, depending on volume of projects needed to get a representative sample, and inspections will be conducted continuously every week throughout the life of the program to maintain the required number of verification inspections

- Complete checklists based on established procedures and criteria to verify equipment eligibility, quality of installation and commissioning, and accurate reporting of quantities and types of installed equipment

- Work with the customer and Market Partner to resolve any discrepancies, if applicable; any deficiencies discovered during an inspection will be fully remediated by the responsible contractor

- Provide valuable feedback on a continuing basis to Market Partners to help them improve their measure installation acumen, with the goal of continuous improvement of installation quality as well as expanding the abilities of these small, community-based contractors

- Inspectors will finalize, record, and track all quality assurance findings and any necessary project remediations. Our program team will use information collected during the inspections to inform best practices, develop or modify installer trainings, and inform program design changes. The team will use this information to mentor Market Partners so they can install program's measures in accordance with all applicable standards and regulations and provide high-quality, customer-focused services.

For NMEC measures, all relevant project delivery will follow the most up to date CPUC NMEC Rulebook and SCE M&V requirements for site-level NMEC, and LBNL Technical Guidance as needed.

8. Other Program Metrics

Program progress is tracked through multiple metrics including but not limited to:

- Energy savings (gas and electric) – estimated and verified
- Energy savings in DACs
- Cost effectiveness
- Savings forecast
- Customer satisfaction
- Engineering quality

Program Measurement and Verification (M&V):

Program M&V plan is listed below for all pathways.

Normalized Metered Energy Consumption (NMEC) Program M&V Plan

We will use meter-based approaches for estimating and calculating energy savings as the primary option for CERI project delivery and will adhere to all CPUC guidelines. While we anticipate needing to use deemed and custom for some projects and/or customers, we will lead with a meter-based approach.

Site-Level NMEC. For site-level NMEC projects, savings are calculated at an individual building, project, or site level. The site-level NMEC approach is split into three phases: Pre-Installation (Baseline), Installation, and Reporting (Performance). Pre-screening and project development occur in the Baseline period; measures are installed and verified during Installation; savings are determined and documented during Performance. The target population for site-level NMEC projects is larger healthcare, high-tech, biotech and private school customers. We are targeting a savings threshold of >200,000 kWh savings for site-level NMEC projects.

Pre-Installation (Baseline). Each potential project will be pre-screened for eligibility. The facility's condition will be assessed for possible major repairs or upgrades. Potential efficiency measures will be identified and assessed for deep savings. At least one year (we may use 18 months) of energy use, weather data and other influential variable data (i.e. occupancy for private schools) will be analyzed to determine whether a model can be developed to Goodness-of-Fit (GOF) matrices set in NMEC Rulebook 2.0 by CPUC using open-source tools and reviewed models such as Degree Day Models, Change Point Models, Time-of-Week and Temperature (TOWT), Time-of-Week (TOW), degree days models and other models. We will work with Market Partners and customers to identify Non-Routine Events (NRE) and adjust them as Non-Routine Adjustments (NRA) as needed while adhering to CPUC guidelines.

A project feasibility study (PFS) is completed to describe the facility, its equipment and operations, recommended savings measures, their savings-weighted useful life, and how the program influenced the customer to meet CPUC requirements. We will use calculation-reviewed methodologies such as the Lighting Workbook for lighting measures, custom calculators (e.g., the Lighting Workbook v4 and the Modified Lighting Calculator for lighting projects, and the HVAC tool v2.2 for HVAC RCx and retrofit measures) affirmed by CalTF members and the CPUC. We will leverage SCE's Simple Payback - EUL Calculator v1.2 to determine estimated project EUL. We may use modeling software such as EnergyPlus or eQUEST for modeling building and estimating savings, and may use deemed savings numbers for applicable measures per CPUC guidelines to estimate savings at pre-install level.

Annual estimated total savings for recommended measures and annual baseline period energy use for electric and natural gas will be reported in the PFS. To ensure savings are detectable above model noise, the program will target ~10% savings of baseline year electric and natural gas consumption. Any potential projects of less than 10% savings will be discussed with SCE and may be described in the PFS on how meter-based analysis may be used to quantify the savings at an acceptable certainty level.

A project-level M&V plan will be developed on how data will be collected and how savings will be quantified based on program requirements and may include: a data collection plan documenting data collection and analysis (i.e. details for weather file, meter number and SAID for which interval data is gathered); building utility meters or participant-owned submeters, including electric, natural gas, or energy delivered from a central plant (chilled or hot water and steam); a description of modeling algorithms and tools used to develop building baseline energy model(s); baseline energy model's GOF and accuracy metrics; an assessment of expected savings uncertainty and how savings will be detectable at an acceptable level of certainty (uncertainty should be less than 50% at 90% confidence level, the calculation should be made using the total expected savings or by assuming a minimum 10% savings would be achieved); how baseline period NREs were identified and analyzed; static factors and how they will be tracked to identify potential NREs, and how anticipated NREs occurring in the installation and performance periods will be identified and impacts removed from the final savings estimation; how savings will be documented and reported after 12 months of the Performance period.

Installation. Following project acceptance by SCE (potential advisory review if project is picked up in CPR by the CPUC), the measures are installed. Installation will be limited to 18 months, per CPUC requirement. The post-installation report will describe measures installed and update individual measure energy savings estimates if measures were installed differently than planned or not installed, and provide full measure installation and project cost information for installed measures, supported by receipts, contractor invoices, installed meter costs, and customer labor and materials. All costs will be associated with each measure, and an updated savings-weighted EUL calculation. Incentives may be calculated and included in the post-installation report.

Post-Installation (Performance). During this period, energy data will be collected for 12 months after installation completion, achieved savings will be determined using normalized weather, and savings will be reported. We will provide a savings report that will include description of models used, meter calibration requirements and documentation for data from sub-meters used, document actual measures installed and expected savings and the modeling algorithms used, model GOF metrics, and energy savings analysis. Any NREs identified and adjusted will be included in the report. Savings will be normalized to CZ2022 weather data per CPUC guidance. Demand savings will be determined using most recent California statewide guidance DEER peak demand definition, and documentation included in the final savings report. Any deviations from planned M&V activities will be identified and explained.

Custom

M&V of a project's savings is based on an agreed upon plan being established and followed to determine the appropriate existing system performance, and post-installation system performance. The difference between the annual baseline energy use and the annual post-installation energy use is the savings associated with the project. The pre-installation M&V data collection is dictated by the requirements of the measure type. The list of measure types and appropriate baseline include:

ECM #	Measure Type	Baseline Details
1	NR	Baseline must comply with code or standard practice, and code requirements may dictate the baseline equipment efficiency. Trended data would be then used for operating hours, and load profiles.
2	AOE-to code	Baseline is the existing performance of the energy system, provided the system met code at the time of the original equipment installation date.
3	AOE-above code	Baseline is the existing performance
4	AR	
5	BRO	
6	NEW	Baseline must comply with current code or standard practice. Since the measure is either an added load to a facility, or new construction, there is no baseline data to measure or collect. The baseline is constructed from estimates of expected operations at code efficiency levels.

Energy system performance data for an IPMVP Option B-Retrofit Isolation measure is collected via the BMS or site-installed loggers, and is typically recorded in 15-minute or shorter intervals. The interval depends on the response time to the independent variable, and the period should be for two weeks or more. Enough data should be gathered to capture 80% of the temperature bin range in order to develop good fit correlations between the dependent and independent variables.

Below is a sample M&V points table for a commercial HVAC RCx project for the air and water sides of the system. The baseline for each measure is determined from the existing performance of the subsystems that are to be optimized by the measures.

ECM #	Measure Name	Information/Data to be Collected
1	AHUs fan static pressure reset	Fan VFD Speed, Supply Air Temperature (Hot deck and cold deck temperature when applicable), Return Air Temperature, Mixed Air Temperature, Outdoor Air Damper Position, Duct Static Pressure, Outside Air Temperature-DB, Outside Air Relative Humidity
2	Adjust supply air temperature reset	
3	Chilled water reset	CHWST, CHWRT, CWST, CWRT, CT Fan Speed, CHW Pump Speed, Outside Air Temperature, Relative Humidity/ Wetbulb Temperature
4	Condenser water reset	
5	Optimize chilled water pump VFD	

Baseline performance of each of the subsystems in the HVAC system can be evaluated against an independent variable (typically against ambient temperature) using industry best practice and in accordance with ASHRAE Guideline 14,

The baseline energy use for the fans, pumps, chillers, and cooling towers is calculated in a spreadsheet model. The model is constructed on either an hourly basis using a full year of eTRM weather data for the climate zone the building is located in, or a weather bin model in which the annual hours of operation for each of the more broadly defined weather bins of 1°F to 5°F are used to simplify the analysis. A revised calculation for the proposed case considers the expected operational changes.

Once measures are implemented and properly commissioned, post-installation trend data is collected (the same data points as when baselining) and analyzed in the same model. The post-installation energy use calculations are adjusted with any updated regressions to accurately model the implemented measure and its post-installation operation. As part of the ex-post phase, savings are "trued up" from the original ex-ante calculations. Our energy models contain numerous equations that cannot fit here given the response format; however, sample models can be provided upon request.

In the case of non-routine events that affect the performance of the installed measures, the model baseline must be adjusted to reflect the conditions observed during the post-installation monitoring period. For example, if the building occupancy decreased considerably, the baseline would be revised to reflect the changes in occupancy and calculation inputs would also be changed to normalize the baseline energy use.

As these events are non-routine, revisions to the baseline must be carefully considered to accurately assess the impact of the measure installation rather than the change in operations for the non-routine event.

Deemed

RI's M&V plan for Deemed measures consists of the following elements:

- For projects with a combination of Deemed and Custom measures, determination of eligibility for Deemed measures occurs during the pre-installation phase. A review of measure package requirements is conducted to ensure the measure meets the measure package criteria; if not, it is reviewed as a custom measure or ineligible.
- For Deemed measures submitted without accompanying custom measures, implementation information, eligibility criteria, and cost documentation are required with the application.
- The Deemed application is reviewed to ensure all applicant/customer information is completed (e.g., facility information, contact information, site data, etc.).
- We confirm the customer pays the Public Goods Charge on energy purchases and hasn't participated in a program recently enough to disqualify them from this program.
- We review submitted invoices for cost information, number of units installed, and date of installation.
- We review the base case and installed conditions, energy calculations, demand savings, and incentives for accuracy based on approved Measure Package savings per unit and incentive rate per unit.

The post-installation Deemed application process will include document review including specification sheets and invoices. In most cases, we will substantiate the base case using photographic evidence and also verify the installation visually. For any applications with insufficient or incorrect information, RI will work with the customer or Market Partner to identify the deficiency and provide a clear path for submitting a complete application. For projects that include a combination of Deemed and Custom, RI will screen all proposed project measures by type during the development phase.

For any Deemed measures identified, the Measure Package from the eTRM defining the criteria for eligibility and number of units will determine savings and potential incentives for the project. Incentive rates may be calculated based on measure package information. A Deemed application will be completed for all measures submitted under the Deemed Platform once the measures are implemented and the invoices are collected. For measures that do not conform to the requirements, the measure will be included in the set of Custom measures and follow specific rule sets for inclusion in the project.